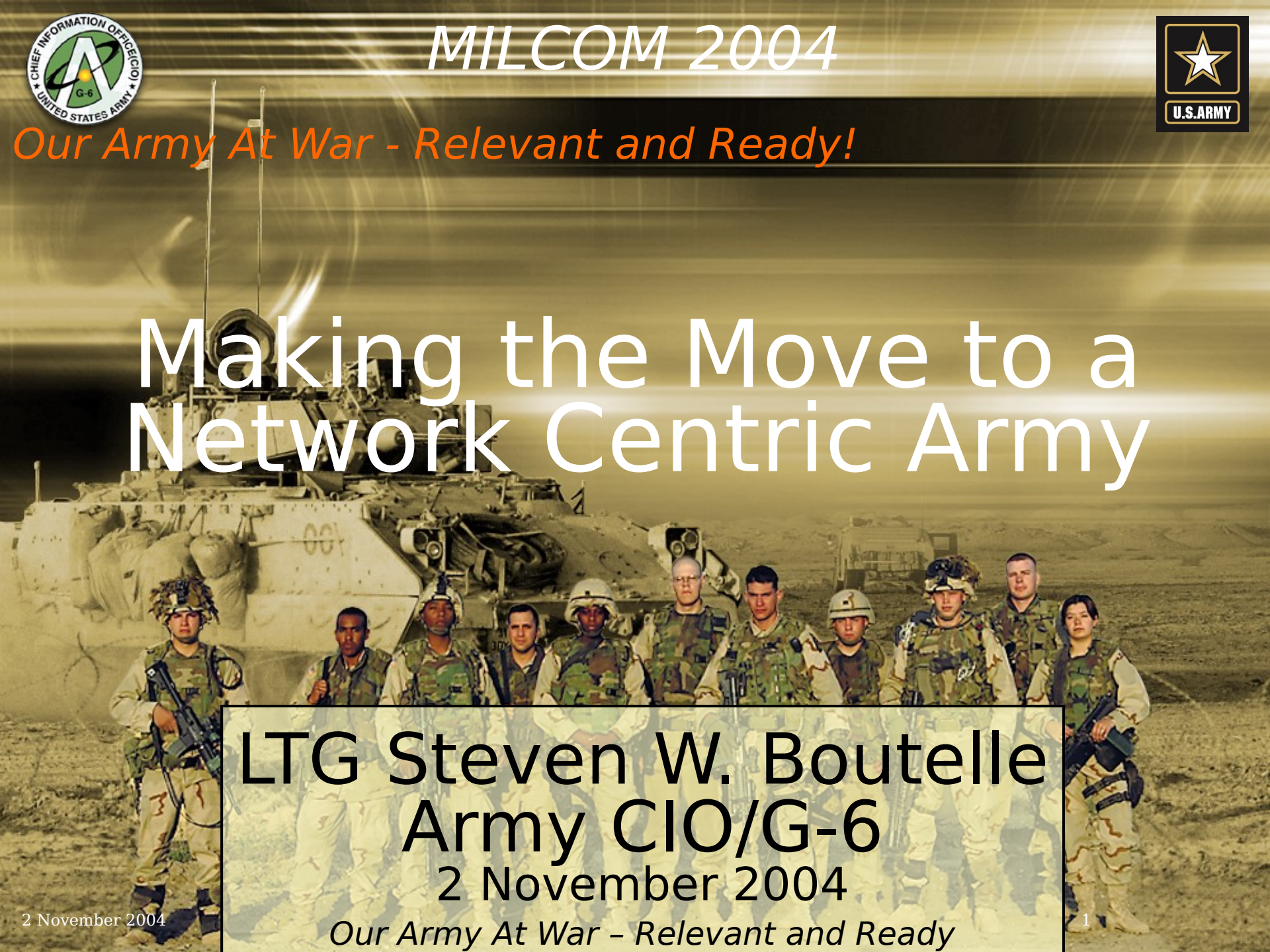


MILCOM 2004

Our Army At War - Relevant and Ready!

Making the Move to a Network Centric Army

LTG Steven W. Boutelle
Army CIO/G-6

2 November 2004

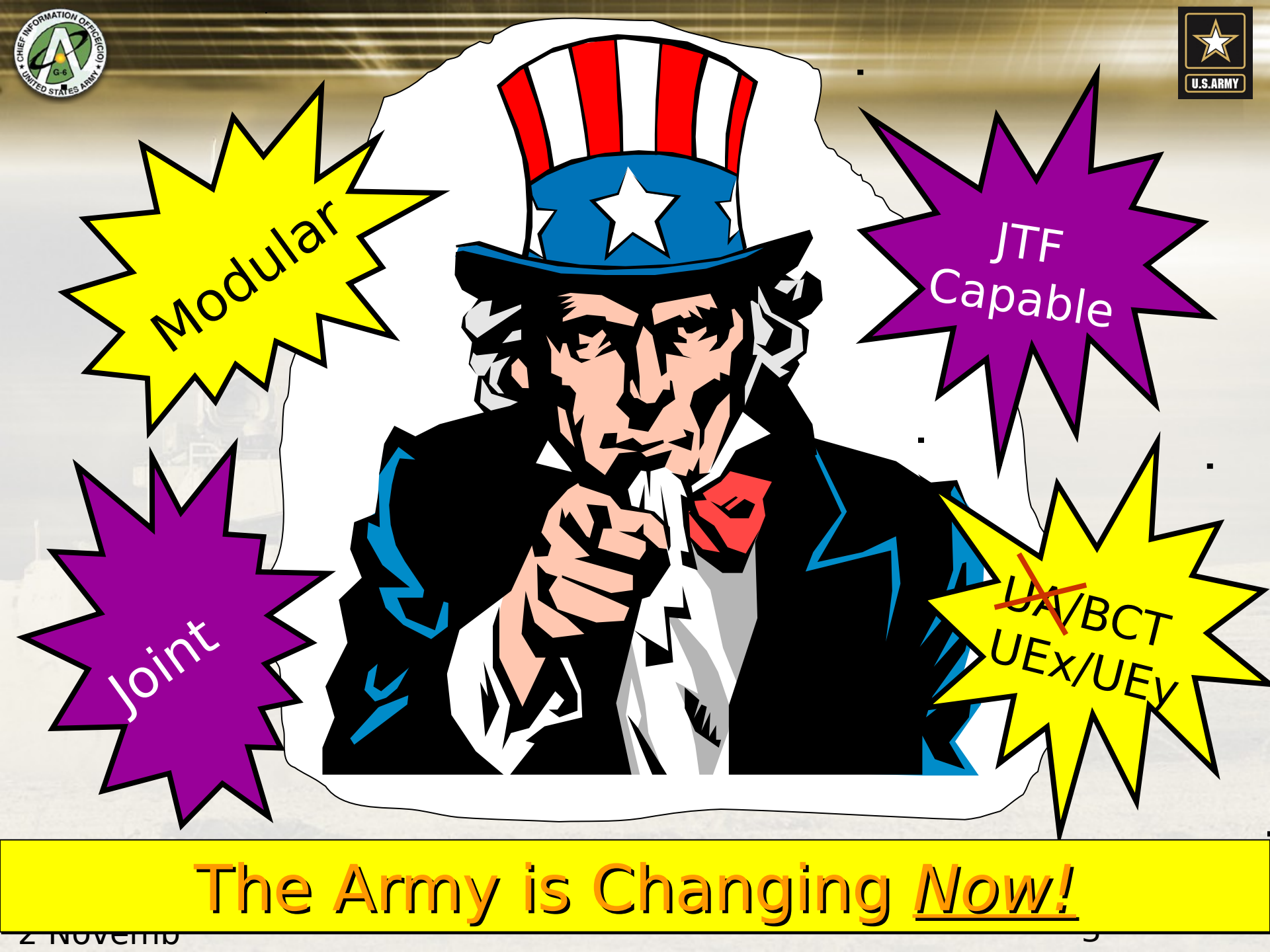
Our Army At War – Relevant and Ready

Immediate Progress

April to August 2004,

Our Army contracted and is now delivering a new Networking capability that will help *Transform* Deploying units into….

NetCentric, Modular, Unit's of Employment and Brigade Combat Teams!!



The Army is Changing *Now!*

Leveraging Commercial Capabilities

IP - Internet Protocol
JNTC-S - Joint Network Transport Capability-Spiral
NIPR - Non-secure Internet Protocol Router Network
SIPR - Secret Internet Protocol Router Network
SVTC - Secure Video Teleconference
WIN-T - Warrior Information Network – Tactical

JNTC-S

2004-2006
Commercial Technologies
Voice Over IP/Dynamic IP
SIPR/NIPR/Video/SVTC
Commercial/Military-Satellite Communications

WIN-T

2006-2014
Advanced Technologies

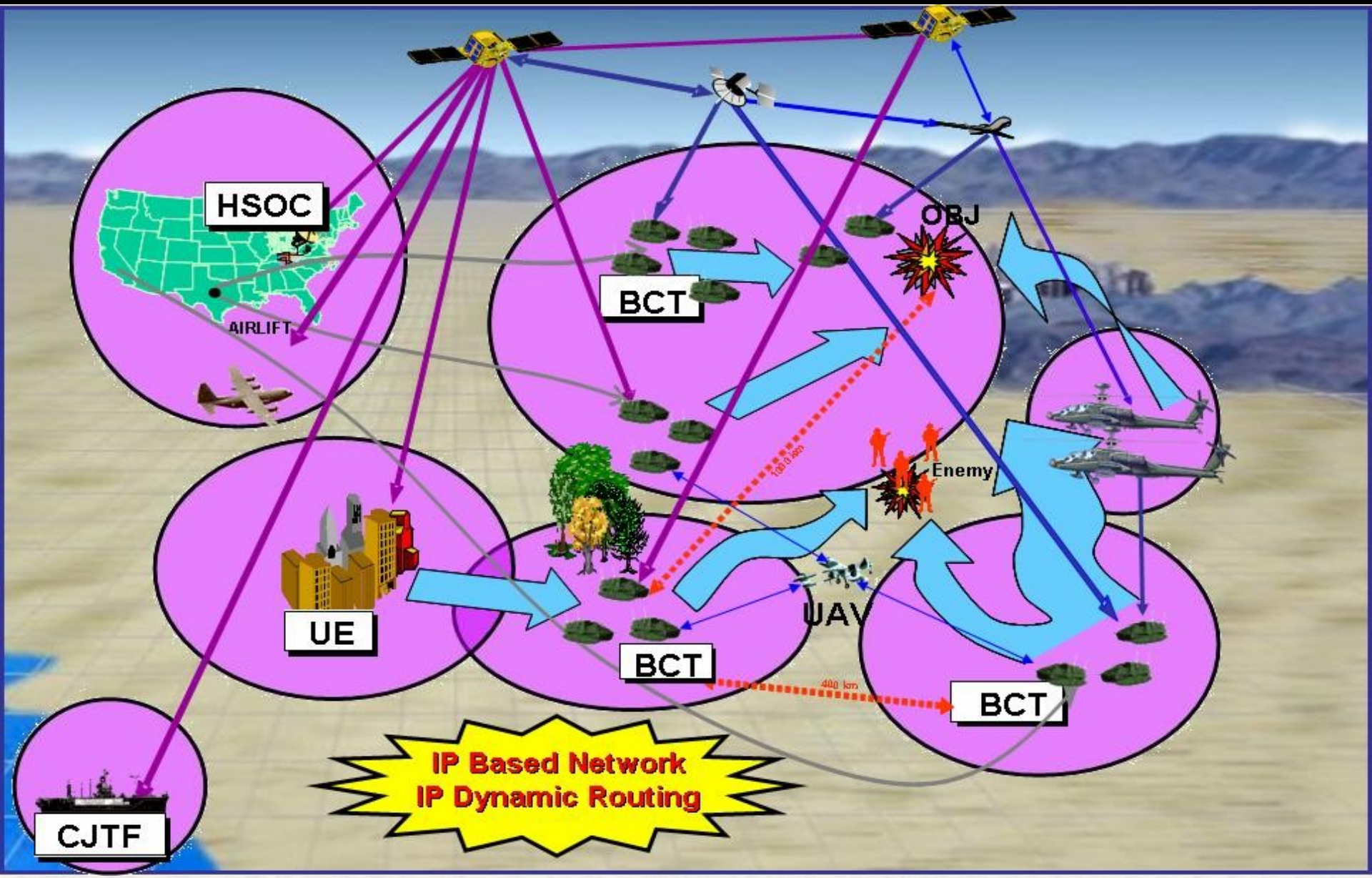
- Commercial satellite communications
- Wideband Gapfiller S (WGS)

- Advanced Extremely High Frequency (EHF)
- Mobile User Objective System (MUOS)
- Transformational Communications System (TCS)

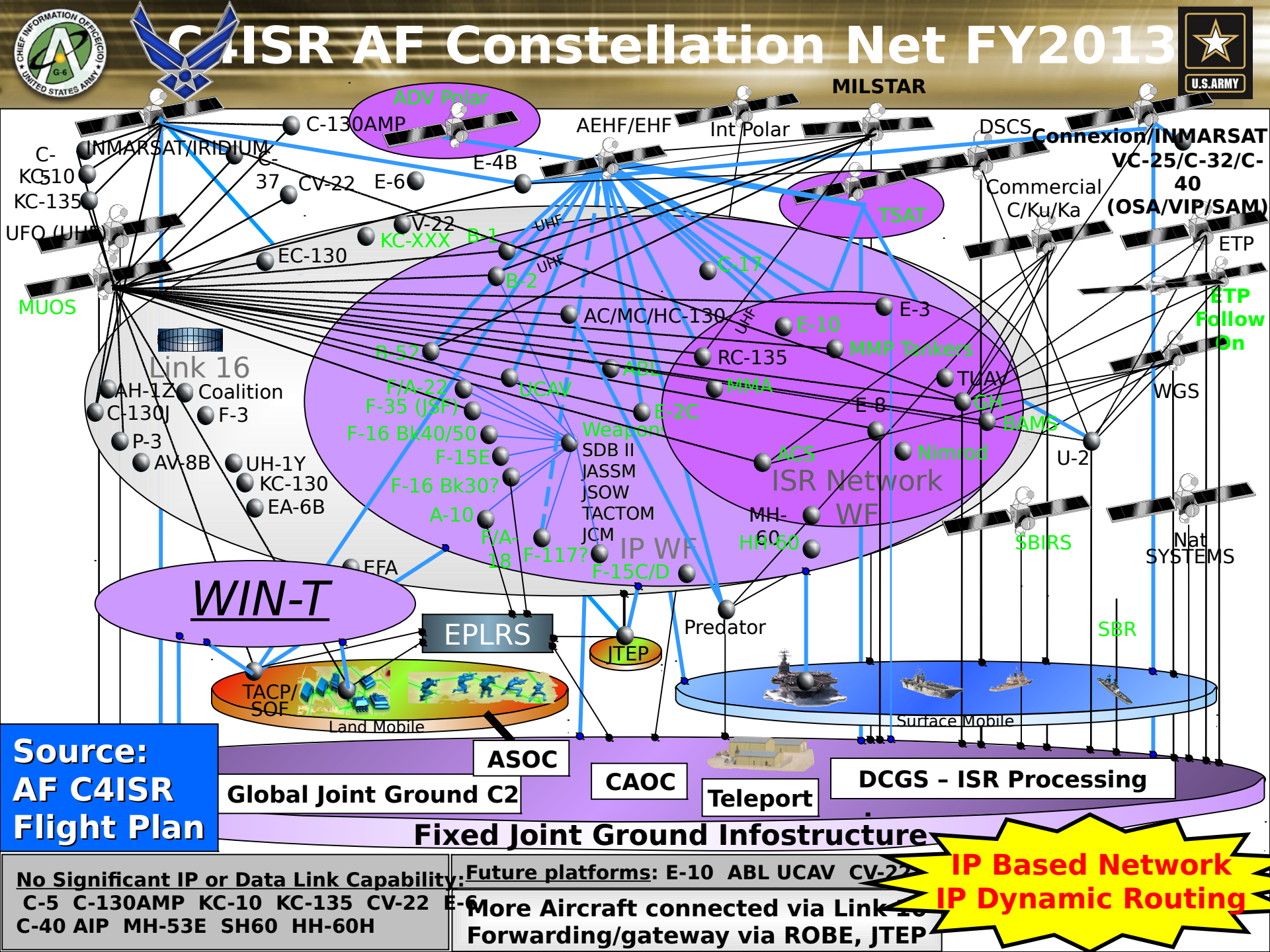
- Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T)
- Blue Force Tracking (BFT)
- Trojan Spirit
- Combat Service Support (CSS)

USAR - acquired
- Data Packages
- Flyaway Tri-Band Satellite Terminals

LandWarNet – FY20XX



C4ISR AF Constellation Net FY2013



Source: AF C4ISR Flight Plan

No Significant IP or Data Link Capability:
C-5 C-130AMP KC-10 KC-135 CV-22 E-6
C-40 AIP MH-53E SH60 HH-60H

Future platforms: E-10 ABL UCAV CV-22

More Aircraft connected via Link 16
Forwarding/gateway via ROBE, JTEP

IP Based Network
IP Dynamic Routing

JNTC-S Network Components "CSS"

Strategic

DOD LOGISTICS IS UNCLASS

Commercial KU SATCOM

Commercial Lines

GIG/DISN

Commercial SATCOM Facility

UEy/UEx/BCT (40 Ku VSATs 3 ID)

Delivered May 2004!

SARRS
ULS
SAMS
Etc.

Wireless CAISI

INMARSAT Terminals used as part of CASS Business Network for contingency c

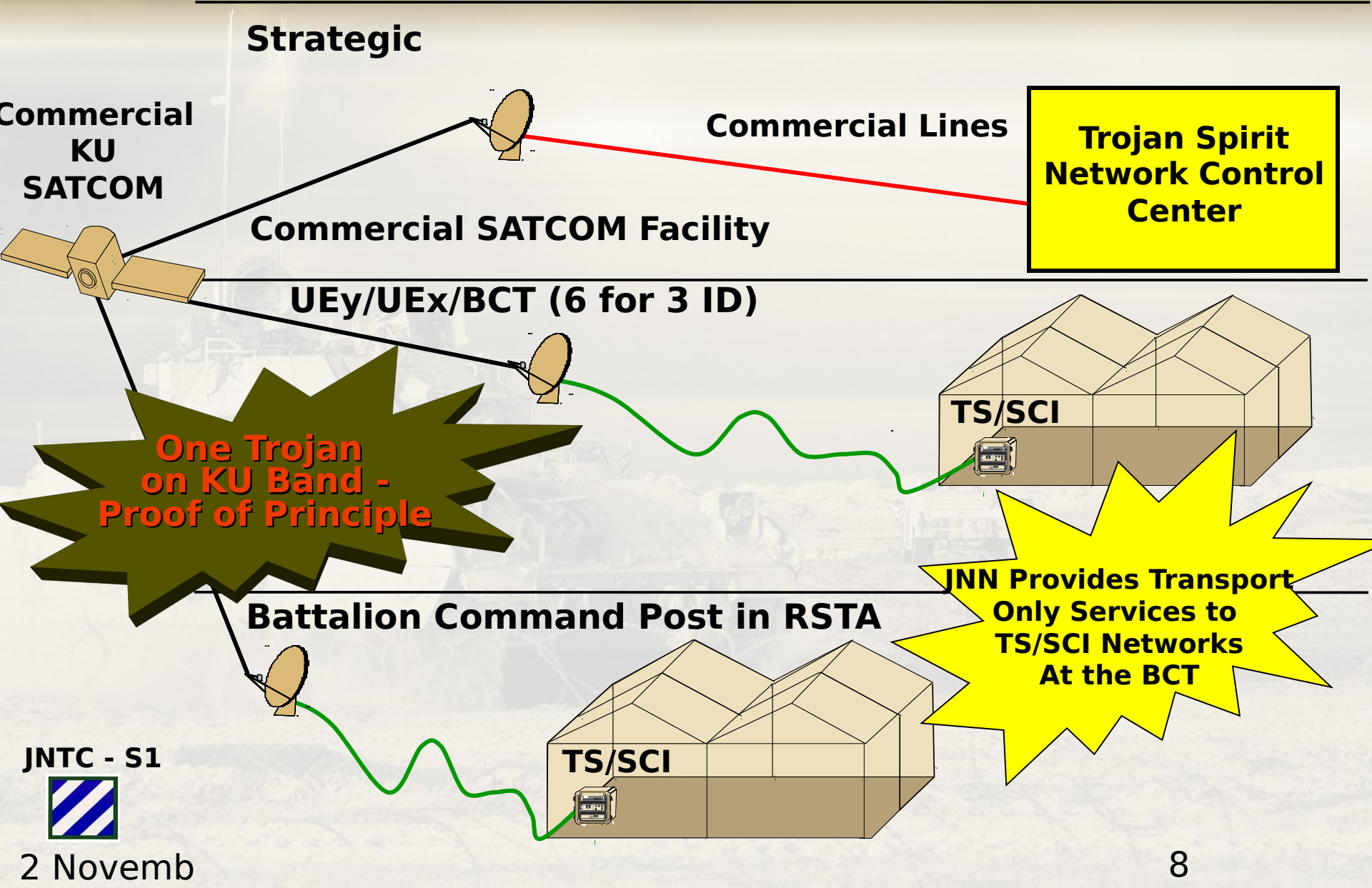
Battalion Command Post

SARRS
ULS
SAMS

Wireless CAISI

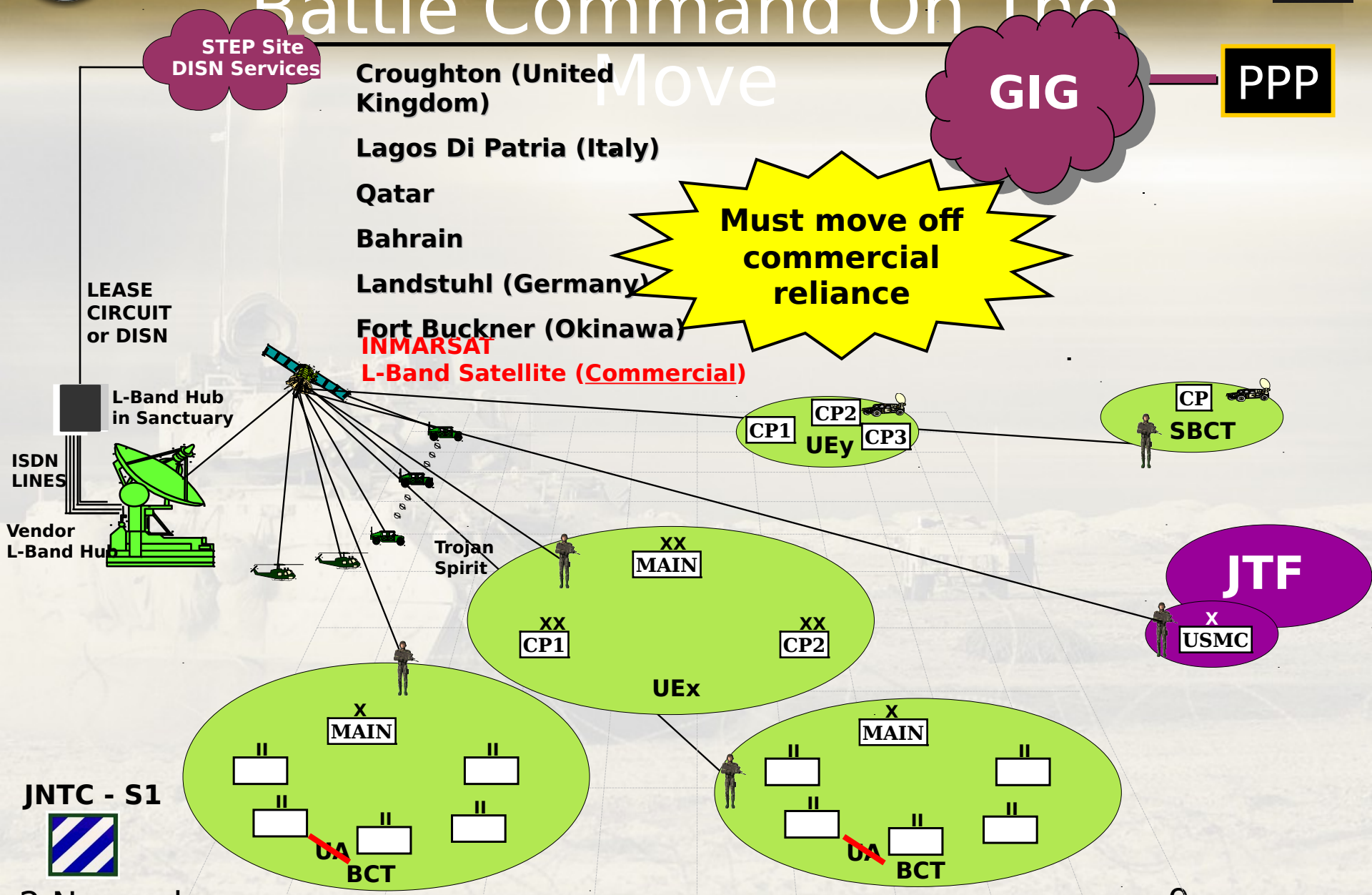
JNTC - S1

JNTC-S Network Components "INTEL"

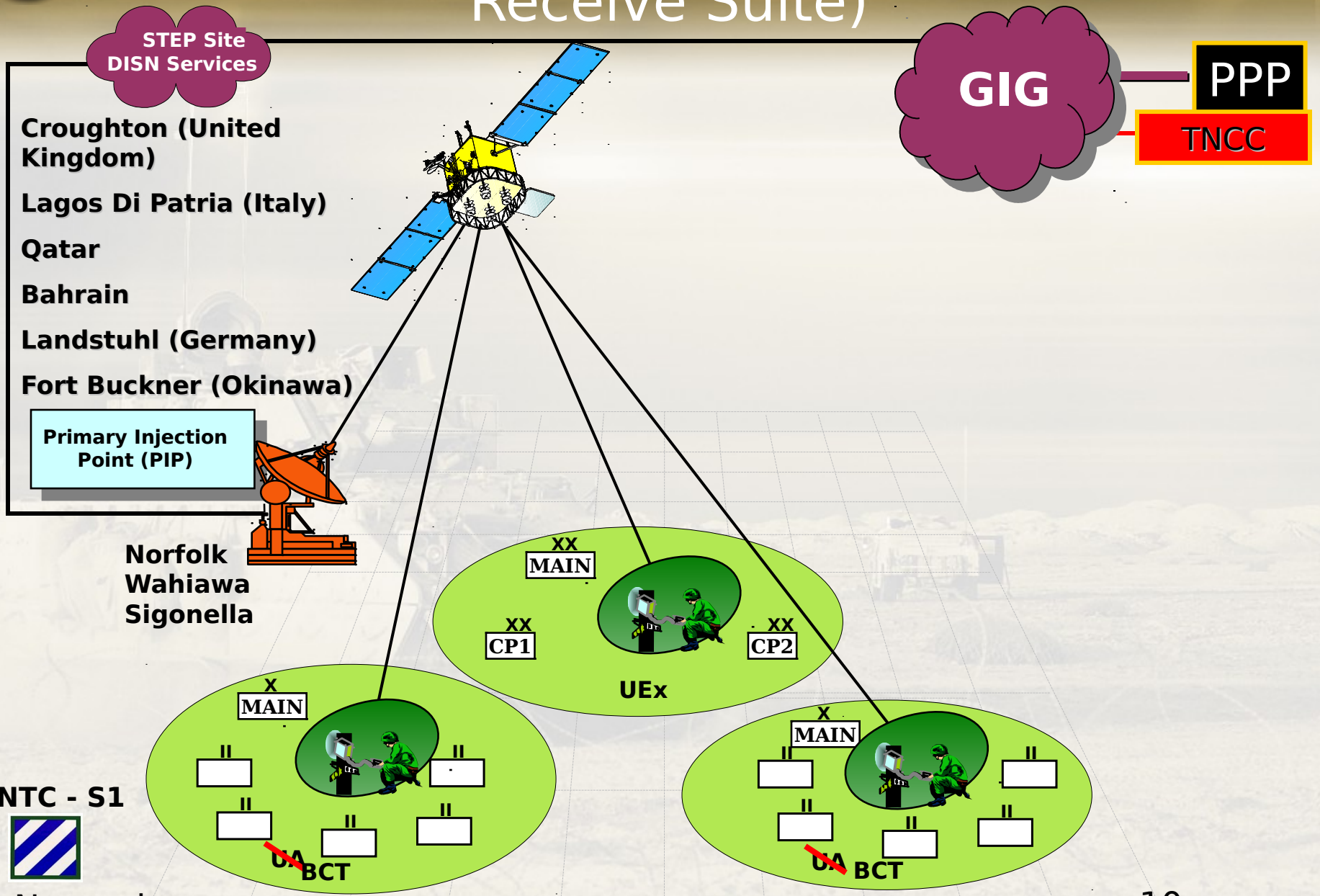


JNTC - S1

JNTC-S: Blue Force Tracking / Battle Command On The Move

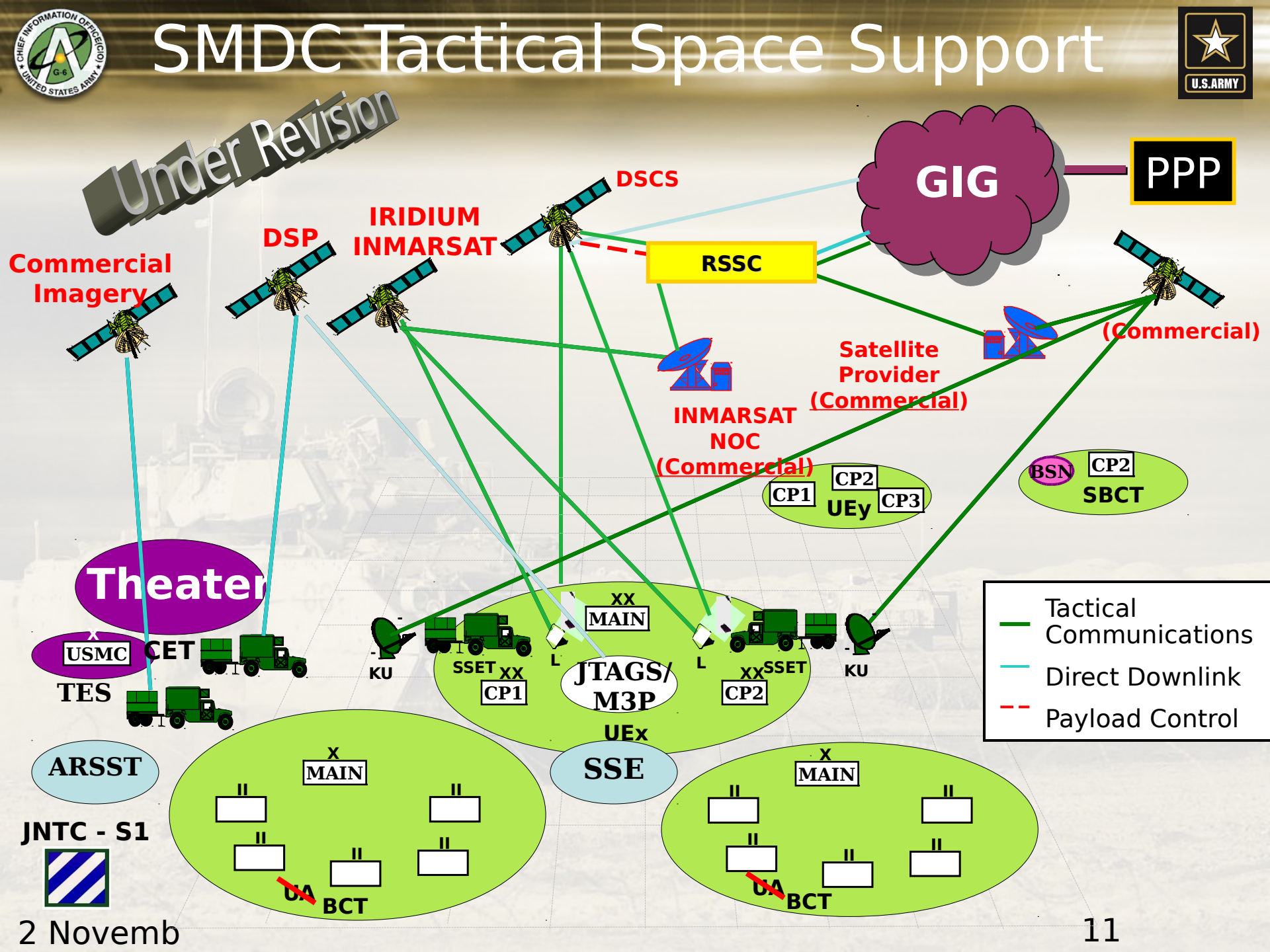


JNTC-S: GBS (Transportable Ground Receive Suite)



JNTC - S1

SMDC Tactical Space Support



JNTC-S Network Components

Delivering Now!

Sanctuary

Maximum Bandwidth is dependent on architecture

Gateway Hub (2)

TDMA 40 Mbps Shared

3.7m FDMA 36 Mbps Shared

Provides up to 76 Mbps Of Commercial SATCOM Bandwidth

Existing E…

JNN Netw…

Baseband

GIG/DISN

Spiral in:

- Ka Band
- Operations on the move
  - ….Ka and Ku
- Wireless LAN

UEx/ Brigade Combat Tea…

1.024 Mbps

TSC-85/93

7 Mbps SATCOM
36 Mbps HCLOS

SMART-T
1.544 Mbps

36 Mbps

…190 V(3)

SIP

Red Voice

LAN/Network MGT

Element Mgmt (NIPR) (SIPR)

NIPR

BITS

Black Voice

ISYSCON V4 (NIPR) (SIPR)

WAN (NIPR)

DPEM (Planning)

Battalion

Command Post Node (34)

Ku 2.4m

4 Mbps Shared SATCOM
2 Mbps LOS

JNTC - S1

2 Mbps

LOS TRC-190 V(1)

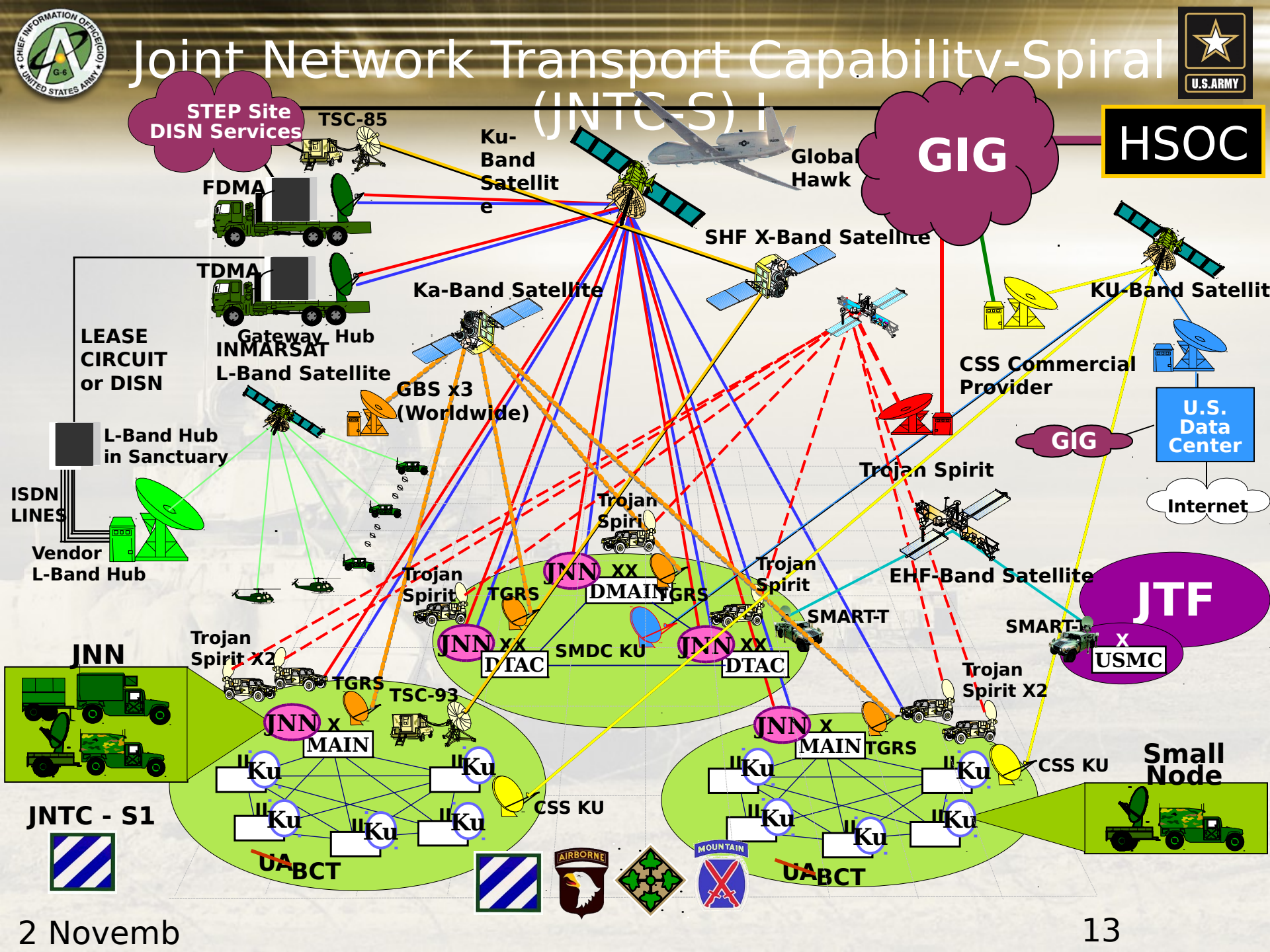
Ku

SIPR

LAN MGT

ISYSCON V4 (SIPR)

Joint Network Transport Capability-Spiral (JNTC-S) I



ID JNTC-S1 Delivery

Concept: Jan 04

Transit Cases

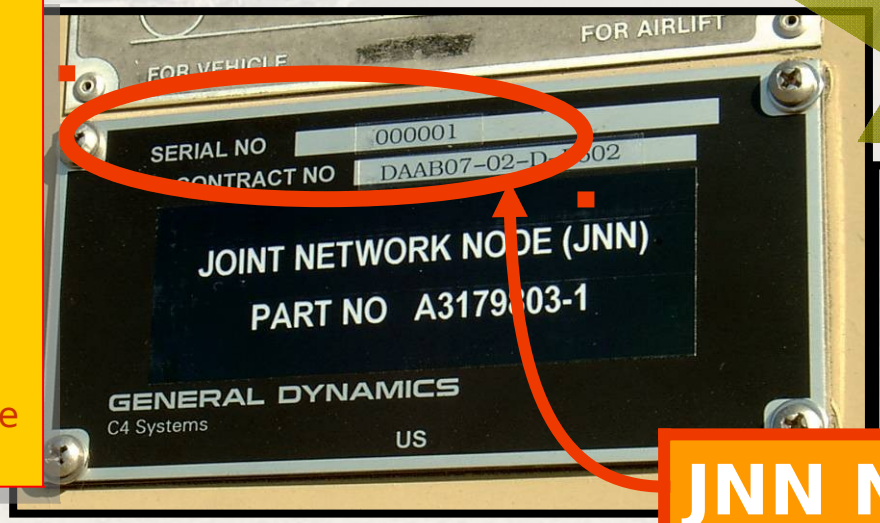
Hubs

KU Band Trailers

Training

<u>On-site:</u>
- System Management
- JNN Operator
- Ku Trailer Operator

<u>Schoolhouse:</u>
- $9 Million applied to future training

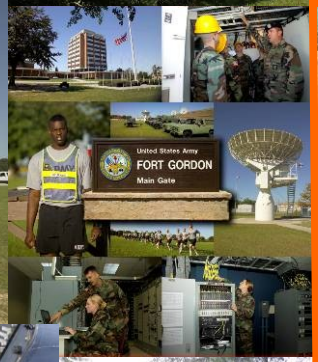


JNN Number 1

Delivery: 9 AUG !!

JNTC-S1 is being delivered TODAY!

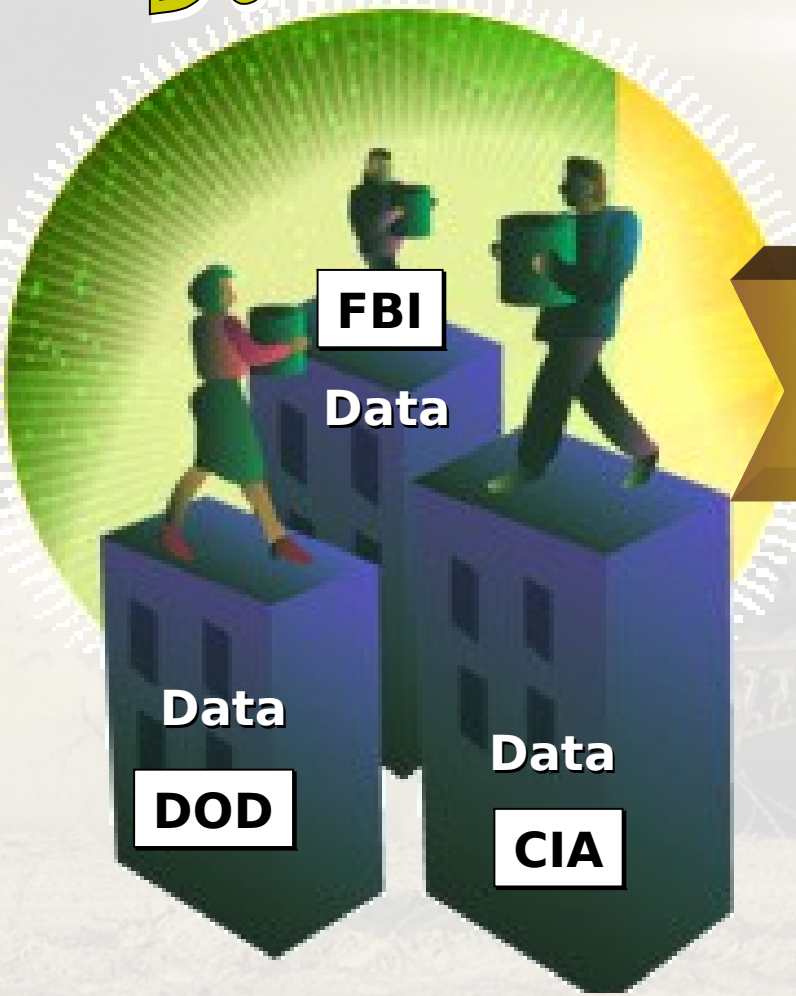
Upgrading the infrastructure



The Next Step

Data to Decision Superiority

Semantic Web



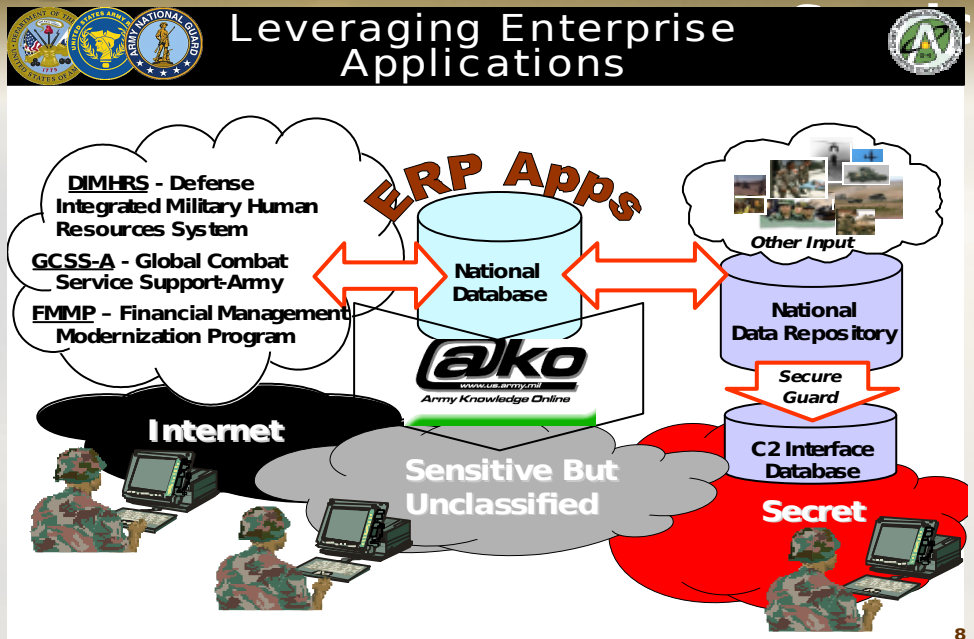
Rapidly Actionable Information

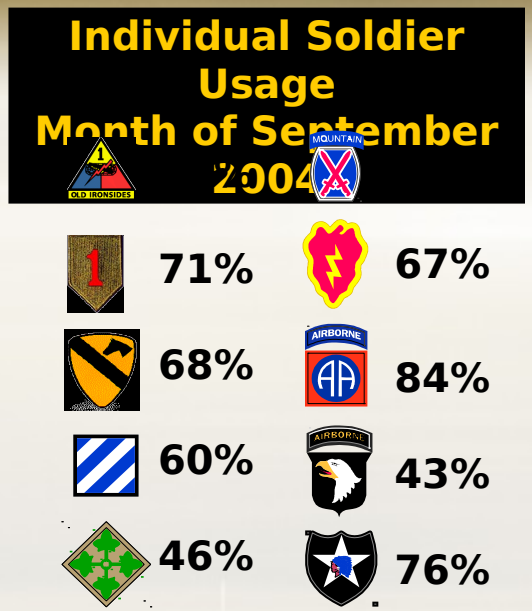
It's About Net Centric Enterprise Services

……URI, RDF, XML, UDDI, SOAP, WSDL

Army Knowledge Online

Net-Centric Portal for Army Knowledge, Systems, and [illegible]es





Supporting the Global War on Terrorism

- Universal Secure Access to Information (NIPR/SIPR)
- Force Development & Protection thru Knowledge
  Sharing and Collaboration:
  - RC Mobilization / Training and Lessons Learned
  - Arab Translators, USAR, NG, CID
  - HUMINT Search Engine / J-2 Intel Updates

Supporting the Army's Business Areas

- Access to Business Systems (e.g., DIMHRS)
- Single Sign-On / Authentication to functional domain information
- Secure sites for Family Readiness Groups
- Self-Service Information 24x7:
  Medical Readiness Personnel Records

AKO – A Global Perspective

- Flow Model
- SIPR
- NIPR
- AKO
- SRS
- .....
- .....
- .....

- Resourced Since 9-1
- Nearing Completion
- Availability = 100%

AKO DR Site

GuardNet

ARNet

Ft. Belvoir

AKO Europe

AKO-S

AKO Korea

AKO-S

AKO Hawaii

AKO-S

SW	SW	SW	SW	SW
Finance "My Pay"	Personnel "My Personnel"	Operations "My Training"	Logistics CSSCS	Intelligence Intel Portals
Allotments TDY LES	Assignments Records Photos	Planning SRS Army Flow Model	LOGMOD E-Commerce	Analysis Reports Warnings

Web based applications accessed through AKO

Take Away's

- The Army is fielding advanced "Joint Interdependent" networking capabilities NOW!
- Army and Joint networks moving to IP based, IP Dynamic Routing – Joint Architecture
- Leveraging Commercial Technology - JNTC preparing to transition to WIN-T - - FCS
- AKO is a Core Warfighting Enabler

Questions?

G-6 SCIO
703-693-3064/3069